




Geotechnical Management System Information Synthesis

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Geotechnical Management System Information Synthesis

Primary Project Objective

Synthesize relevant information regarding the development, implementation, and management of Geotechnical Management Systems (GMS) from State DOTs

Secondary Project Objective

Compile information regarding GMS development from other U.S. and international agencies involved in assimilating geotechnical data

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- **Impetus for the Project**

- Geotechnical data are often timeless in nature
- State DOTs often return to locations where geotechnical information has been obtained but is not readily available
- Information from other organizations is not readily available
- Individual item management systems are developed (rockfall, landslide, mine, etc.)



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- **Impetus for the Project (cont.)**

- Current data management systems are often incomplete and are not standardized
- Efficient data collection, management, and exchange will likely result in significant financial and time benefits
- Prior to defining a system that can be implemented across the US, it is desirable to compile a synthesis of DOT experience

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- **Prior FHWA and DOT Database Experience**

- Automated Geotechnical Information and Design-Aid System (AGIDS)
- National Geotechnical Experimentation Sites Database (NGES)
- Bridge Management Systems (PONTIS and others)
- Experience of Several DOTs (MN, MD, AL, VA, Caltrans, etc.)

- **Related Experience**

- Consortium of Organizations for Strong Motion Observation Systems (COSMOS)
- Association of Geotechnical Specialists (AGS)

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- **Goals for the Project**

- Provide a synthesis of current DOT experience
- Identify experience of other organizations
- Identify current system capabilities and user needs
- Identify problems with development of current systems to aid new developers
- Provide synthesis project results in "user friendly" interactive format
- Provide guidelines and recommendations regarding the development of a "standard" GMS format

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Project Scope of Work

- Task 1: Develop Contact Survey
- Task 2: Conduct Agency Interviews
- Task 3: Synthesize Survey Information
- Task 4: Prepare Synthesis Report and CD

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- **Observations to Date**
 - Several states and organizations have developed systems to address local project needs
 - Some states have developed or are developing systems that have been “accepted” across the state
 - Formats and capabilities for current systems vary widely
 - Often related to bridge or maintenance records
 - Scanned images and documents common
 - Range from boring logs, project reports, to design input

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- **Observations to Date** (cont.)
 - Strong interest in GMS concept but concerned about implementation and operational and functional maintenance
 - Interest in compiling boring records in geographical information system (GIS) format
 - AGS, COSMOS, and other agency experience appear to offer critical “first step” experience to the DOTs and FHWA, but may need modification

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- **Project Status**
 - Approximately 50 percent of DOTs contacted
 - Information compiled into Access database and interactive CD
 - Project ongoing and results/report expected March 2004
 - Workshop planned for June 2004
 - Anticipate formation of a technical working group

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- **Request**

- If specific system/agency capabilities are known, please contact FHWA so that contact can be made
- If interested in participation and not contacted, please leave business card (including e-mail address)
- Contact: **Thomas Lefchik**
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